



Going WILD...!

A Newsletter for Project WILD Educators in California
Volume VI Fall 2000

Project WILD K-12 & Aquatic Education Guides Have Been Revised

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What's new?

✓ Twenty five new activities have been added to provide more in-depth content of issues such as wildlife management, human dimensions, habitat loss, and other topics critical to sustaining fish and wildlife resources.

✓ Both the conceptual framework and the individual activities have been revised to help teachers meet national education standards.

✓ Background information found in the activities has been updated to provide current statistics and factual information, and to highlight recent successful conservation efforts.

✓ Formats have been revised to help educators more easily select and use activities appropriate to their students' grade level, subject area, skills, and setting.

✓ The complete conceptual framework can also be found on the Internet at www.projectwild.org.

For Educators trained in Project WILD, new guides will be distributed through "update" workshops. See page 3 of this newsletter for a schedule of these training sessions. You are invited to attend one of the workshops listed, or any Project WILD workshop after January 1, 2001, to receive new guides.

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Science and Civics: Sustaining Wildlife - A New Addition to Project WILD

This high school curriculum will be available after February 2001. Over the past two years, 134 teachers and 2,000 high school students from five states have participated in Project WILD's pilot *Science and Civics: Sustaining Wildlife* program. The program involves students (grades 9-12) in environmental action projects which benefit the local wildlife community. It integrates both science and social studies with a two-strand core of activities: Habitat Exploration and Participatory Democracy. The program uses a set of awareness activities in which students investigate their own community's needs related to wildlife and the environment. Students address these needs through service learning or community based projects.



Project WILD Media Contest



Calling all Project WILD Educators!! Now that the Project WILD Guides are revised, it's time to update the introduction video and displays we use in workshops and at outreach events. We are in the process of gathering new video footage and pictures, and we think that Project WILD educators would be a great resource to help with this project!

If you have videos and/or photographs of students participating in Project WILD activities [i.e., in the classroom, outdoors, in an after school program, or at a club meeting] we invite you to enter the **Project WILD Media Contest**. We will review the entries and if we decide to use your material, you win a PRIZE!! Interested in participating? Please contact Sylvia Gude for further information about how you can enter! E-mail sgude@dfg.ca.gov, or phone 916-657-2672 (toll free 1-888-945-3334).

Closing The Achievement Gap:

Using the Environment as an Intergrating Context for Learning is a study developed and conducted by the State Education and Environment Roundtable (SEER), Gerald Lieberman, Ph.D., program director. The Roundtable is a cooperative endeavor of education agencies from 12 states working to improve student learning by integrating the environment into K-12 curricula and school reform efforts. Their study identifies the most innovative and successful programs, describes their effectiveness, and analyzes their commonalities and differences. Check out their website @ www.seer.org. The SEER website contains the executive summary of the study.

The latest information on the website is the *California Student Assessment Project, The Effects of Environment-based Education on Student Achievement*. The purpose of this project was to study the educational efficacy of using the environment as an integrating context for learning (EIC) when compared to traditional educational methods. This project was designed to determine if there are measurable changes in academic achievement, as indicated by standardized tests, for students who have the opportunity to learn in programs that use the EIC approach when compared to students in traditional programs. In addition, the study sought to examine behavioral effects, indicated by attendance records.

Standardized data comparisons paired schools (one traditional - one EIC). Standardized tests (SAT, CTBS, & CAT), proficiency test or portfolio assessment were used for the assessment. In summary, the EIC students scored higher than their traditional counterparts in 72%, 101 to 140, of the academic assessments analyzed. It is interesting reading, check it out and pass on the website address and information to other educators.





Schedule

for
Update Workshops and Facilitator Training

<u>DATE</u>	<u>TYPE</u>	<u>Location</u>
December 6, 2000	Update	Sacramento
December 7, 2000	Update	Sausalito (SF Bay)
January 11, 2001	Update	Los Angeles/Long Beach
January 12, 2001	Facilitator	Los Angeles/Long Beach
January 13, 2001	Facilitator	San Diego
February 2, 2001	Update	Riverside
February 3, 2001	Facilitator	Riverside
March 9, 2001	Update	San Diego
March 30, 2001	Update	Ventura
March 31, 2001	Facilitator	Ventura
April 28, 2001	Facilitator	North San Francisco Bay-Santa Rosa
July, 2001	Facilitator	Sacramento
September, 2001	Facilitator	Cupertino (South Bay & Monterey)
Fall, 2001	Facilitator	Fresno/Bakersfield or Redding/Eureka

Update workshop will be conducted from 4p.m. to 8p.m. A \$10 fee for the cost of dinner will be collected at the workshop.

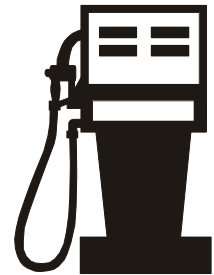
Facilitator Training will be conducted from 8:30 a.m. to 4:30 p.m. Completion of a basic Project WILD workshop is a prerequisite for this training.

If you have questions or wish to reserve a place at any of the above workshops contact: Project WILD toll free 1-888-945-3334 or email: bwinn@dfg.ca.gov or sgude@dfg.ca.gov





What If Water Cost As Much As Gasoline?



Activity adapted from the 92/93 *Going WILD* newsletter

Energy in the forms of gasoline and fuel oil is expensive and people are aware of the need to conserve energy. In contrast, water is relatively inexpensive but people still need to conserve it. The following activity is designed to help students begin thinking about the value of water and how they can conserve it. Use this with the Project WILD Aquatic activity *How Wet Is Our Planet?*

Procedure

1. Ask students to imagine that water cost the same as today's price for gasoline.
2. Ask them to tally their water use over a short period of time, on the worksheet provided. Remind students to estimate the amount of water used on their behalf when a parent does laundry.
3. Discuss the results.

Which student used the least water? Who used the most? What made the difference? What changes would encourage water conservation?

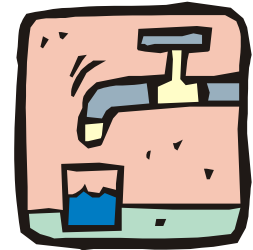
Think about what would happen to water usage if water actually did cost the same as a gasoline?

What other methods or incentives can encourage people to conserve natural resources other than making it expensive? (Example: education programs - try to teach people to conserve; rationing programs-sets strict limits on water use; tax credits and deductions - provide economic incentives.)

Which conservation methods, do you think, would be most effective? Should people conserve water even if it is inexpensive?

Activity Sheet

1. Calculate the COST per Use by multiplying the number of gallons of water listed for EACH USE by the PRICE per Gallon.
2. Each time you use water, record each type of water use.
3. Use your record to calculate how much MONEY you have Spent on Water.



PUT CHECK for each use	USE	EACH USE	times	PRICE per Gallon	COST per equals use	MONEY spent for Water
	Washing Dishes by hand	10 Gallons	X		=	
	Automatic Dishwasher	11 Gallons	X		=	
	Flushing Toilet	4 Gallons	X		=	
	Cooking & Drinking	3 Gal/Day	X		=	
	Washing Hands	1 Gallon	X		=	
	Brushing Teeth (water running)	2 Gallons	X		=	
	Shower	18 Gallons	X		=	
	Bath	30 Gallons	X		=	
	Washing Clothes	30 Gallons	X		=	
TOTAL COST						

Project WILD Aquatic Activities

- ✓ Keep a weekly log of your water use at home. *Alice in Waterland* will take students on a simulated field trip, explore water use, the consequences of water use and conservation methods.
- ✓ Investigate a watershed. *Watershed* will aid students in understanding the characteristics of watershed and the role they play in providing habitats. Extend the activity to water rights, who “owns” water resources. What are private versus public rights to water resources?
- ✓ *Water Down History* investigates the local history of a community to determine how water has influenced the development of the area and how the community has affected the water.
- ✓ Research local water quality issues, use *Deadly Skies* and *Deadly Waters*, (new guides- *What’s in the Air* & *What’s in the Water*). Pick an issue and write a letter to a government official stating your view and suggestions for change. Develop an action plan for improving the water quality in your community.
- ✓ Produce a class newspaper, use *Aquatic Times* activity. Research and report on water needs for agriculture, review a visit to a fish hatchery, or analyze water articles from local papers or magazines.
- ✓ Learn about the role of wetlands in water quality using *Wetlands Metaphors*.
- ✓ Chemicals and their effect in pond water, surface or groundwater can be investigated using *The Glass Menagerie* and *Deadly Waters*.
- ✓ Do the activity *Plastic Jellyfish* and then organize a clean-up along a local waterway.
- ✓ *Aqua Words* will help you use water as an inspiration in language arts.
- ✓ Have students be “weather watchers”. Use a rain gauge and document the rainfall. Students can explore rainfall runoff with *Where Does the Water Run After School?* and *Puddle Wonders*.

AQUATIC RESOURCES

From the Project WILD Office: Dept. of Fish & Game/Project WILD, 1416 Ninth St, Sacramento, CA 95814; toll free 1/888/945-3334.

Aquatic Study Prints Sets, 18 (8 1/2 x 11) color photos of California native freshwater aquatic species with species-specific information and Project WILD aquatic activities. We would appreciate your donation of \$3.50 each to help offset our cost. Make checks payable to the CA Wildlife Foundation.

Posters -free upon request:

Benthic Macroinvertebrates, Indicators of Water Quality, (22x16) illustration of stream ecosystem and evidence to determine stream health. Compliments the PW Aquatic activity *Water Canaries*.
What flows here...Ends up Here, (16x13) emphasises the importance of Storm Drain water management and compliments PW activity *Where Does the Water Run After School*.

From other sources:

Creek Critters, A Guide to Common Aquatic Vertebrates and Invertebrates of Central California. This book is a great identification guide. Cost per copy: 9 or less \$18.50, 10-49/\$15.50, 50+/\$13.50. Order from: Livermore Area Recreation & Park District, 71 Trevarno Rd., Livermore, CA 94550, Attn: Ranger Supervisor, phone (925)373-5770.

Wetland Habitat Fun Packs can be ordered from Ruth Ostroff, Central Valley Habitat Joint Venture, phone 916/414-6460 or on the web at <http://www.mp.usbr.gov/cvhjv>

Wetlands Facts Sheets are available on the web <http://www.epa.gov/OWOW/wetlands/contents.html>

“Life on the Edge: Improving Riparian Function”, video explains riparian functions and their role in watershed health. Order from Oregon State Univ, Publication Orders, Extension & Station Com., Oregon State University, 422 Kerr Administration Building, Corvallis, OR 97331-2119, cost \$19.95.

Resources - continued from page 5

Exploring the Estuary, computer software about the ecology of the Estuary and the impacts of human activities. Available from the Aquatic Outreach Institute, 1327 South 46th Street #155, Richmond, CA 94804-4603, phone 510/231-5655, cost \$35.

Web Sites

Dept. of Water Resources - California Water Page
<http://www.dwr.water.ca.gov/>

State Water Resources Control Board
<http://www.swrcb.ca.gov>

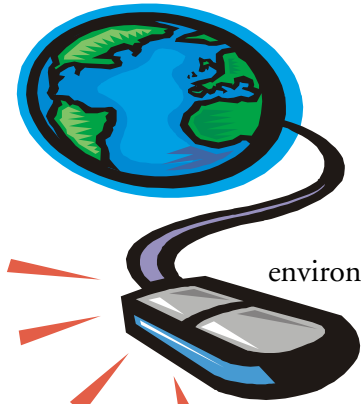
The Water Education Foundation
<http://www.water-ed.org>

Environmental Protection Agency
<http://www.epa.gov/surf> Locate your home watershed

U.S. Geological Survey
<http://www.usgs.gov/education> Watershed and other educational materials.

WaterWiser
<http://www.waterwiser.org> The site contains a host of conservation and water-related links.

Review the *Mira Vista Garden Project* at
<http://www.tbns.net/omegajim/MiraVista/index.htm>
This project was started with a grant from the Aquatic Outreach Institute.



Other Web sites to
connect you to the world of
environmental education information:

CA Project WILD
<http://www.dfg.ca.gov> Species and habitat information, and educational resources.

National Project WILD
<http://www.projectwild.org> A new set of teacher pages provide links to information on species featured in Project WILD.

CERES (California Environmental Resources Evaluation System)
<http://www.ceres.ca.gov/education>

CEEIN (California Environmental Education Inter-agency Network)
<http://www.ceres.ca.gov/education/ceein>

EE-Link - for K-12 environmental educators
<http://www.eelink.net>

U.S. Fish and Wildlife Service - Endangered Species Home Page
<http://www.fws.gov>

National Wildlife Foundation
<http://www.nwf.org> for the 2000 Wildlife Week Kit choose/wildlifeweek

Assoc. for Environmental and Outdoor Educators
<http://www.aeoe.org>

Desert USA Magazine
<http://www.desertusa.com:80/index.html>

CA Air Resources Board
<http://www.sparetheair.com> (click on city graphic) Visit SMOG CITY an interactive air pollution simulator.

Union of Concerned Scientists to test environmental knowledge by playing The Great Green Web Game.
<http://www.ucsusa.org/game>

Amazon Rainforest Workshop **July 5-13, 2001**

An experience designed to develop teachers' environmental leadership skills. Join author/illustrator Lynne Cherry; work with researchers in ornithology, botany, marine biology, and entomology. Enter a \$1000 workshop scholarship drawing. Scholarship deadline is April 2. Call Frances Gatz at 800/669-6806, email fgatz@earthlink.net or check the web site www.TRAVEL2LEARN.COM. Academic credit is available.



Guest Article

Successful WILD Effort Lead by Teens

by

Marianne Bird

4-H Youth Development Advisor, Sacramento County



Harness the enthusiasm and creative energy of teenagers, tie it to the well-designed Project WILD materials and set the combination into a camp with a mission to teach younger children, and magic can happen.

Magic did happen for 80 fourth, fifth and sixth grade students from the Sacramento START after school program and the 15 teenagers who staffed On the Wild Side, an environmental education project orchestrated by the 4-H Youth Development program in Sacramento County.

Funded by the Sierra Club's Youth in Wilderness Project, On the Wild Side's goal was to allow children from economically disadvantaged neighborhoods in Sacramento to learn about the environment and experience the beauty of the outdoors at an overnight camping experience. Key to the project's success were the teens who served as teachers and program planners for the weekend event.

"The teenagers were great," stated Project Coordinator and Project WILD Facilitator Debby Lippolis. "They were eager, flexible, had great ideas, and were willing to try new and different things. The teens are closer in age to the children and can relate better."

The teenagers attended a Project WILD and Project Learning Tree training session then, working in teams and with adult coaches who had also attended training, selected and planned the activities they would lead during the weekend camp. The program provided an optimum service-learning experience for the teens who embraced their responsibilities with tremendous zeal.

"It was a whole new adventure to them," Lippolis commented about the teens and the amount of responsibility they assumed in their planning and teaching roles. "They took hold of the project and ran with it. They had a lot of fun."

The teens proved effective teachers. Pre-and post-tests indicated that the elementary children increased their vocabulary, grew in their knowledge of habitat and ecosystems, and became familiar with plants and animals in the Sierra foothills. Teens were observed not only giving good activity directions, but asking probing questions to help children process what they were experiencing.

And probably just as importantly, they were described by the young participants as "friendly", "fun," and "cool".

Running the program was a highlight for the young teachers, and many commented that choosing and delivering the program activities was the best part of the experience. All 15 indicated they would like to be part of future On the Wild Side Projects. Tired but happy, one teen's comment at the end of the program summed the group's feelings.

"I hope we get to do this again," she said. "It was worth it."

Sometimes making magic is a lot of work.



We invite you to share your WILD stories with the *Going WILD...!* readers. It is interesting and motivating to read how educators use Project WILD to spark learning. Your story or your students creative work could be featured in the next *Going WILD...!*

UPDATING THE DATABASE!

Keeping our data base current will allow us to keep you current with WILD Information. Mail any address, name, or new telephone area code changes to **Dept. of Fish and Game/Project WILD, 1416 Ninth Street, Room 1326, Sacramento, CA 95814.**

INTERESTED IN FACILITATOR TRAINING?

Facilitators help other educators learn about Project WILD and agree to conduct one workshop or presentation a year. Would you like to become a Project WILD Facilitator? **Check the Facilitator interest box below and send in the return address portion of the newsletter.** You will receive a Project WILD Facilitator Interest Form to complete and return. The information from this form will help us provide you the training needed to be a Project WILD Facilitator.

RESOURCES FROM CA DEPARTMENT OF FISH AND GAME:

Directory of Public Resources: this is an extensive directory of the services, programs and people who make up the department. Order the free guide from - Department of Fish & Game/Conservation Education, 1416 Ninth Street, Room 1240, Sacramento, CA 95814.

The *Outdoor California* magazine, great information on wildlife, habitat and resource management. Subscriptions are \$9.95 (1 yr.-6 issues). Send your check to: *Outdoor California*, PO Box 944209, Sacramento, CA 94244-2090.

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☐ INTERESTED IN BEING A
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Project WILD, a K-12 supplementary environmental education program emphasizing wildlife, is sponsored in California by the Department of Fish and Game through the sale of environmental license plates. Aquatic Project WILD is funded by the federal Sport Fish Restoration Act. *Going WILD...!* is the newsletter for Project WILD in California.